



CONVERTING THE SOLID WASTE STREAM TO ETHANOL

January 10, 2005

**THE HONORABLE ROSARIO MARIN, CHAIR AND MEMBERS
CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD
1001 "I" STREET
SACRAMENTO, CA 95814**

SENT VIA EMAIL

RE: AB 2770 REPORT TO THE LEGISLATURE

Dear Chair Marin and Members:

WASTE TO ENERGY is a Conversion Technology (CT) company that represents the **GENAHOL HYDROLYSIS PROCESS** combined with several other CT's to provide solid waste entities with a "tool" to achieve 100% recycling in the State of California. We represent significant new technology that was not envisioned by AB 939, yet provides a means for California to produce fuel-grade ethanol (and eventually hydrogen fuel cells) from a renewable biomass resource. In addition, we produce biochemicals and other products that take advantage of a "closed-loop" process in a positive "air resources and water board" friendly manner; in that, we also generate our own power, heat, energy and electricity to operate the CT facility as well as a MRF, transfer station or landfill. Our technology allows, already established solid waste facilities, to incorporate our technology into as little as 20,000 sq. feet and process as little as 150 tons per day at a highly profitable level.

In other words, we offer a means to have many locally operated ethanol plants in close proximity to every gasoline terminal location in the State of California on a JIT (Just In Time) delivery scale; in significant quantities to eliminate importing transportation fuels into the State.

You would think that this type of new technology would be a win-win for all concerned!

Yet, we have been trying to site such a facility for the past 3 years in California without success, because, California has conflicting regulations and/or prohibitive regulations to co-site such facilities!

The upcoming CIWMB Report to the Legislature on Conversion Technologies (as required by AB 2770) is an opportunity for the Board to take a historic and visionary step toward achieving California goals of:

- Approaching 100% diversion from California landfills
- Turn, presently landfilled materials into renewable transportation fuel
- Turn, presently landfilled materials into renewable energy/electricity
- Stabilize recycled commodity pricing and flow of materials to the marketplace here in the US
- Finally produce a means for municipalities to manage their solid waste flow with a full compliment of tools, and

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- Provide solid waste companies or municipal departments with a profit potential for recycling

I know that several other people have outlined the technical reasons for not submitting the “Draft Report to the Legislature” as written and I will not reiterate those points. However, I would like to address the issues that would be of historic significance **TO** include in the report; they are:

- ❖ **PROVIDE “TOOLS” FOR THE MANAGEMENT OF THE SOLID WASTE NOW AND IN THE FUTURE**
 - Anaerobic Digestion (although not a subject of the Life Cycle Analysis or Market Analysis) is not covered by CT’s ... it is, along with composting, a “tool” to manage the waste stream
 - Note: Hydrolysis (our technology for producing ethanol) is considered in the same category as AD, but is defined differently by the CIWMB. This is an instance of conflicting regulations and confuses the entire picture.
 - Do not restrict CT’s in terms of defining what they are or should be, because you will only repeat the mistake of AB 939. None of us know what new technologies will be introduced later that will be automatically excluded from the “toolbox”! *(I support the definition of CT’s as outlined in the BPA letter.)*
 - The Board should take this opportunity to make a strong case to the Legislature for promoting and implementing a wide range of CT’s in California!
 - **Redefine the Hierarchy as “Beneficial Use”.**
 - This one change in the direction of managing the solid waste stream will actually strengthen the traditional commodity markets in California by creating real supply and demand conditions ... not an artificial market place.
 - MRF operations could change “on-the-fly” it’s product mix according to market conditions. This will greatly improve profit margins and, by doing so, will help keep down customer-oriented fee hikes in the future!
 - **Strongly recommend total “Diversion Credits” for all CT’s**
- ❖ **ENCOURAGE DEVELOPMENT OF CONVERSION TECHNOLOGIES IN CALIFORNIA**
 - **Provide a mechanism to encourage the development of commercial validation plants in California**
 - Allow already existing MRF/Transfer Stations/Landfills to simply add a CT to the NDFE as a matter of staff review and approval
 - Promote an “allowance” for non-solid waste facility siting (for commercial validation plants) that would define a CT as a manufacturing facility for “source separated” materials. This way, the LEA would only have to periodically validate the “source separated” acceptance at CT’s “off-site of solid waste facilities” ... and maintain tight control over solid waste materials going into the solid waste facility only, as they do today (in-flow).
 - Foster a cooperative relationship that would smooth the permitting process with other California agencies (such as CARB) that would put these Validation plants on a level of helping to develop the various technologies. The LEA would be able to monitor the actual results (along with the other agencies) of the performance of these validation plants. This is a system of encouraging development of new “tools” while adhering to strict permitting regulations.
 - ◆ Do not get bogged down trying to regulate air quality or water quality of various processes. These activities are already well represented by other California Regulatory Agencies. All CT’s should meet existing CARB and Water Board, as well as other regulations in a normal permitting process, that is the case now!
 - **Promote California State financing for start-up Conversion Technologies**

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I encourage the CIWMB to take a strong leadership role, outlining a visionary concept to the Legislature on the direction of managing the solid waste stream in the future to the benefit of California!

Best Regards,
WASTE TO ENERGY

Greg Shipley

Greg Shipley
President

THIS IS A VIEW OF HOW WTE/GENAHOL WOULD MANAGE THE SOLID WASTE STREAM IN CALIFORNIA

WTE - ADVANCED SOLID WASTE RECYCLING CONCEPT

